

Remarks

According to the Office Action, claims 8, 11, 14 and 18 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1-3 have also been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,812,977 of Glassman ("Glassman '977"). In addition, claims 1-4 and 8-10 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 2,854,724 of Wuorio ("Wuorio '724"). Further, claims 1, 4, 7, 8, 11, 14 and 18 have been objected to based upon a number of informalities. Still further, the abstract, the specification and the drawings have been objected to based upon a number of informalities.

On September 16, 2004, Examiner Jennifer E. Novosad and counsel for Applicant conducted a telephone interview. On September 17, 2004, counsel for Applicant and Examiner Novosad exchanged e-mail correspondence regarding the telephone interview conducted on the previous day. The substance of those communications is summarized in Applicant's "Written Statement Regarding Telephone Interview Pursuant To 37 C.F.R. § 1.133(b)" which was filed on September 17, 2004. As described more fully below, the amendments discussed during these communications have been incorporated into this Amendment/Response to Office Action.

Applicant has now amended the claims, the abstract, the specification and the drawings of his application to address the rejections and objections cited in the Office Action. More particularly, Applicant has amended claim 1, and by dependency therefrom claims 2-19, to address the rejections under 35 U.S.C. §§ 102(b) and 103(a), as described in more detail below. Applicant

has also amended the abstract and the specification and added Figure 14 to address the informalities cited in the Office Action. In addition, Applicant has amended claim 1, claim 4, claim 7, claim 8, and by dependency therefrom claims 9 and 10, claim 11, and by dependency therefrom claims 12 and 13, claim 14, and by dependency therefrom claims 15, 16 and 17, and claim 18, and by dependency therefrom claims 19 and 20, to address the rejections under 35 U.S.C. § 112, second paragraph, and the objections based upon informalities. Finally, Applicant offers the following remarks to address the rejections of and objections to his claims and the objections to his specification, abstract and drawings. Applicant respectfully requests reconsideration of the application in view of such remarks and amendments.

I. THE ABSTRACT OF THE DISCLOSURE, AS AMENDED, IS NOT OBJECTIONABLE.

The Abstract of the Disclosure has been objected to as being drawn more to the patent application than the present application. Applicant has rewritten the Abstract of the Disclosure to be drawn more closely to the present application. Accordingly, Applicant respectfully submits that the objection to the Abstract of the disclosure should be withdrawn.

II. THE SPECIFICATION, AS AMENDED, IS NOT OBJECTIONABLE.

According to the Office Action, the disclosure has been objected to because in line 4 of page 1 of the Specification, "6,615,999" should be inserted in place of the blank line. Applicant has amended the Specification of his application in accordance with the recommendation of the Office Action. More particularly, Applicant has inserted the U.S. Patent No., i.e. "6,615,999," in line 4 of page 1 of the Specification. Accordingly, Applicant respectfully submits that the objection to the Specification should be withdrawn.

In addition, Applicant has amended page 10 beginning on line 22 of the Specification to insert an appropriate description of the drawing added to the disclosure. Applicant respectfully submits that the inserted description of Figure 14 on page 10 of the Specification does not constitute new matter and is not otherwise objectionable.

Further, Applicant has amended the Specification at page 32, beginning on line 12. More particularly, Applicant has inserted a detailed description of the added drawing designated as Figure 14. The detailed description of Figure 14 beginning on line 12 of page 32 of the Specification almost exclusively uses language found in the original claims 4-20. In addition, the original Specification provides adequate written support for the additional drawing and the additional detailed description of Figure 14. *See* Specification, page 14, lines 1-9. Accordingly, Applicant respectfully submits that the detailed description of Figure 14 beginning on line 12 of page 32 of the Specification does not constitute new matter and is not otherwise objectionable.

III. THE DRAWINGS, AS AMENDED, ARE NOT OBJECTIONABLE.

According to the Office Action, the drawings have been objected to under 37 C.F.R. § 1.83(a) as failing to show every feature of the invention specified in the claims. More particularly, according to the Office Action, certain features recited in claims 4-20 are not shown in the drawings.

Applicant has now added Figure 14. Figure 14 illustrates a representative structural member having a pair of slots along each lengthwise side and a pair of slots along each widthwise side in accordance with the present invention. Moreover, Figure 14 illustrates each of the features, including the dimensional limitations, recited in claims 4-20, as amended. Further, Figure 14

does not constitute new matter inasmuch as adequate support for the drawing is found in the original written description and the original claims. See Specification, page 14, lines 1-9 and claims 4-20.

Accordingly, Applicant respectfully submits that the objections to the drawings should be withdrawn.

IV. CLAIMS 1, 4, 7, 8, 11, 14 AND 18, AS AMENDED, ARE NOT OBJECTIONABLE.

According to the Office Action, claims 1, 4, 7, 8, 11, 14 and 18 have been objected to for a number of informalities. Further, the Office Action includes detailed recommended amendments for each of the claims objected to for such informalities.

Applicant has amended claims 1, 4, 7, 8, 11, 14 and 18 in accordance with the recommendations of the Office Action. Accordingly, Applicant respectfully submits that the objections to claims 1, 4, 7, 8, 11, 14 and 18, as amended, should be withdrawn.

V. CLAIMS 8, 11, 14 AND 18, AS AMENDED, ARE NOT INDEFINITE UNDER 35 U.S.C. § 112, SECOND PARAGRAPH.

According to the Office Action, claims 8, 11, 14 and 18 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Further, the Office Action includes detailed recommended amendments for each of the claims rejected under 35 U.S.C. § 112, second paragraph.

Applicant has amended claims 8, 11, 14 and 18 in accordance with the recommendations of the Office Action. Accordingly, Applicant respectfully submits that the rejections under 35 U.S.C. § 112, second paragraph, of claims 8, 11, 14 and 18, as amended, should be withdrawn.

VI. CLAIMS 1-3, AS AMENDED, ARE NOT TAUGHT OR SUGGESTED BY GLASSMAN '977.

According to the Office Action, claims 1-3 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Glassman '977. More particularly, the Office Action states that Glassman '977 discloses a system for modular construction comprising a plurality of structural members each comprising a first lengthwise side, a second opposite lengthwise side parallel to the first lengthwise side, a first widthwise side, and a second widthwise side parallel to the first widthwise side. The Office Action further states that the first lengthwise side has at least two slots each having a pair of generally parallel slot sides, an open end along the first lengthwise side and a slot axis parallel to and disposed equally between the slot sides. The Office Action continues stating that a first one of the slots defines a first outside slot nearest to the first widthwise side and a second one of the slots defines a second outside slot nearest to the second widthwise side. Still further, the Office Action states that the distance between the slot axis of the first outside slot and the first widthwise side is a pre-determined slot-to-side distance, the distance between the slot axis of the second outside slot and the second widthwise side is a whole number multiple, i.e., 1, of the slot-to-side distance, and the distance between each of the slot axes of the at least two slots is a whole number multiple, i.e., 1, of the slot-to-side distance. Finally, the Office Action states that the members are connectable slot-to-slot.

Applicant has now amended claim 1, and by dependency therefrom claims 2-3. More particularly, Applicant has amended claim 1 by deleting the following claim language: "wherein each of said plurality of structural members is adapted to be detachably connected slot-to-slot to each of the other of said plurality of structural members." Moreover, Applicant has further amended claim 1 by inserting the following claim language: **"wherein each of said at least two slots along one of said lengthwise sides of one of said plurality of structural members is detachably and selectively connected slot-to-slot to one of all of said at least two slots along one of said lengthwise sides of each of the other of said plurality of structural members."** As discussed more fully below, Glassman '977 neither teaches nor suggests the invention defined by amended claims 1-3.

Claims 1-3, as amended, positively recite, in *structural* language, that each and every slot along the first lengthwise side of a structural member is adapted to be detachably connected slot-to-slot to each and every slot along the first lengthwise side of each and every other structural member. Glassman '977, by contrast, does not teach or suggest a system of modular construction including structural members having slots that may be detachably connected to each and every slot on each and every other structural member. Indeed, Glassman '977 discloses a construction including a plurality of structural members having slots that cannot be detachably connected slot-to-slot to each and every slot of each and every other structural member. More particularly, because the three structural members of each structural element of the construction disclosed by Glassman '977 are fixedly connected to each other, several slots on the structural members of the construction cannot possibly be connected to several slots on the other structural members of the construction. For example, referring to Figures 1-4, slot 24 of structural member 10 cannot be

detachably connected slot-to-slot to slot 20 or slot 22 of structural member 14 (See Fig. 2).

Further, slot 22' of structural member 10' cannot be detachably connected slot-to-slot to slot 24' or slot 20' of structural member 14' (See Fig. 3). As shown in Figs. 1-4 of Glassman '977, the construction disclosed by this reference does not teach or suggest a system wherein each and every slot along the lengthwise side of a structural member can be connected slot-to-slot to each and every slot along the lengthwise side of each and every other structural member.

Thus, Glassman '977 does not teach or suggest the invention defined by amended claims 1-3. Accordingly, Applicant respectfully submits that the rejections under 35 U.S.C. § 102(b) of claims 1-3, as amended, should be withdrawn.

Applicant further submits that the construction disclosed by Glassman '977 does not teach or suggest the scalability achieved by the invention as defined by amended claims 1-3. More particularly, the unique-spaced relationship between the sides and the slots of the claimed invention allows the system of modular construction to be scaled or replicated *ad infinitum* without stacking. Indeed, the invention defined by amended claims 1-3 may be scaled in an interlocking manner such that the replicated structure is an integrally-formed construction as shown in Figures 8, 9, 9a, 10, 11, 11a and 13 of Applicant's Specification. By contrast, the construction disclosed by Glassman '977 may be multiplied only by stacking assembled units, either one on top of the other or by side-to-side placement. As shown in Figures 8-11 of Glassman '977, the required stacking of the Glassman '977 construction results in a non-integral, non-interconnected construction. Further, as shown in Figure 10, such stacking may also result

in an undesirable redundancy of structural members. For this additional reason, the rejections under 35 U.S.C. § 102(b) of claims 1-3, as amended, should be withdrawn.

VII. CLAIMS 1-4 AND 8-10, AS AMENDED, ARE NOT OBVIOUS UNDER 35 U.S.C. § 103(a) IN VIEW OF WUORIO '724.

According to the Office Action, claims 1-4 and 8-10 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Wuorio '724. More particularly, the Office Action states that Wuorio '724 discloses a system comprising a plurality of structural members comprising a first lengthwise side, a second opposite lengthwise side parallel to the first lengthwise side, a first widthwise side, and a second widthwise side parallel to the first widthwise side. The Office Action further states that the first lengthwise side has a least two slots and the second lengthwise side has at least two slots. The Office Action continues stating that each slot has a pair of generally parallel slot sides, an open end along the respective lengthwise side and a slot axis parallel to and disposed equally between the slot sides. The Office Action also states that a first one of the slots defines a first outside slot nearest to the first widthwise side and a second one of the slots defines a second outside slot nearest to the second widthwise side. Still further, the Office Action states that the distance between the slot axis of the first outside slot and the first widthwise side is a pre-determined first slot-to-side distance, the distance between the slot axis of the second outside slot and the second widthwise side is a whole number multiple, i.e., 1, of the slot-to-side distance, and the distance between each of the slot axes of the at least two slots is a multiple of the slot-to-side distance. Finally, the Office Action states that the members are connected slot-to-slot.

Next, the Office Action correctly states that the claims of the pending application differ from Wuorio '724 in requiring the distance between each of the slot axes of the at least two slots in the first and second sides to be a whole number multiple of the slot-to-side distance. The Office Action continues stating that although Wuorio '724 does not disclose the exact dimensions of the members including the distance from a slot to a side and the distance between the slots, it would have been an obvious design choice to one of ordinary skill in the art at the time the invention was made to have fabricated the members having dimensions specified in the claims of the present application for increased ease in economy, manufacture and assembly.²

Applicant has now amended claim 1, and by dependency therefrom claims 2-4 and 8-10. More particularly, Applicant has amended claim 1 by deleting the following claim language: "wherein each of said plurality of structural members is adapted to be detachably connected slot-to-slot to each of the other of said plurality of structural members." Moreover, Applicant has further amended claim 1 by inserting the following claim language: **"wherein each of said at least two slots along one of said lengthwise sides of one of said plurality of structural members is detachably and selectively connected slot-to-slot to one of all of said at least two slots along one of said lengthwise sides of each of the other of said plurality of structural members."** As discussed more fully below, Wuorio '724 neither teaches nor suggests the invention defined by amended claims 1-4 and 8-10.

Claims 1-4 and 8-10, as amended, positively recite, in *structural* language, that each and every

² As discussed in more detail below, this statement squarely contradicts the Examiner's Statement of Reasons for Allowance in the parent application.

slot along the first lengthwise side of a structural member is adapted to be detachably connected slot-to-slot to each and every slot along the first lengthwise side of each and every other structural member. Wuorio '724, by contrast, does not teach or suggest a system of modular construction including structural members having slots that may be detachably connected to each and every slot on each and every other structural member. Indeed, Wuorio '724 discloses a construction including a plurality of structural members having slots that cannot be detachably connected to each and every slot of each and every other structural member. More particularly, because the construction disclosed by Wuorio '724 is a finitely-defined construction, several slots of the structural members cannot be detachably connected slot-to-slot to several slots on the other structural members of the construction. For example, referring to Figure 8 of Wuorio '724, structural member 40 cannot be moved from its illustrated position toward structural member 22 such that slot 48B is detachably connected slot-to-slot to slot 20C of structural member 22. Such a movement of structural member 40 would destroy the utility of the construction described and claimed by Wuorio '724. Consequently, there is no motivation or suggestion in Wuorio '724 to provide a plurality of structural members each having a plurality of slots that may be detachably connected slot-to-slot to each and every slot on each and every other structural member.

By contrast, the Applicant's claimed invention, as defined by the amended claim language described above, requires that each and every slot along the lengthwise side of a structural member may be connected to each and every slot along the lengthwise side of each and every other structural member. Thus, Wuorio '724 does not teach or suggest the invention defined by amended claims 1-4 and 8-10. Accordingly, Applicant respectfully submits that the rejections under 35 U.S.C. § 103(a) of claims 1-4 and 8-10, as amended, should be withdrawn.

Applicant further submits that the construction disclosed by Wuorio '724 does not teach or suggest the scalability achieved by the invention as defined by amended claims 1-4 and 8-10. The unique-spaced relationship between the sides and the slots of the claimed invention allows the system of modular construction to be scaled or replicated *ad infinitum* without stacking. Indeed, the invention defined by amended claims 1-4 and 8-10 may be scaled in an interlocking manner such that the replicated structure is an integrally-formed construction as shown in Figures 8, 9, 9a, 10, 11, 11a and 13. By contrast, the construction disclosed by Wuorio '724 may be multiplied only by side-by-side placement. As can be appreciated by referring to Figs. 7-10, the required side-by-side placement of the Wuorio '724 construction results in a non-integral, non-interconnected construction. For this additional reason, the rejections under 35 U.S.C. § 103(a) of claims 1-4 and 8-10, as amended, should be withdrawn.

Applicant still further submits that the rejections of claims 1-4 and 8-10, as amended, should be withdrawn for an additional reason. According to the Office Action, claims 1-4 and 8-10 have been rejected under 35 U.S.C. § 103(a) as being obvious in view of Wuorio. More particularly, the Office Action states as follows:

"The claims differ from Wuorio '724 in requiring the distance between each of the slot axes of the at least two slots on the first and second sides to be a whole number multiple of the slot-to-side distance . . . Although Wuorio '724 does not disclose the exact dimensions of the members including the distance from a slot to a side and the distance between slots, it would have been an obvious design choice to one of ordinary skill in the art at the time the invention was made to have fabricated the members having dimensions specified in the claims for increased ease in economy, manufacture and assembly." (emphasis added)

These statements, however, squarely contradict the Examiner's Statement of Reasons for Allowance in the parent application.

Indeed, in the Examiner's Statement of Reasons for Allowance in the parent application, the following was the only reason stated for allowing the claims of the parent application:

"The prior art of record fails to show or suggest a system, as specifically called for in the claimed combination of claim 1, whereby "the distance between the . . . slot axes of each of the . . . member slots on each of the . . . members is a whole number multiple of the predetermined slot-to-side distance . . . It is noted that while the prior art, e.g., Miranda, Corson, Bath, etc., shows various systems comprising a plurality of members having slots and being connected together in such a way as called for in the claims, there is no teaching in the prior art to have the "slot-to-slot" distance be a whole number multiple of the "slot-to-side" distance and there is no motivation to provide any of the prior art references with this feature since it is not an obvious design choice to have the slots and sides compared in such a way as called for in the claims . . ." (emphasis added)

As the prosecution history of the parent application reveals, Wuorio '724 was one of, if not the most discussed, prior art reference cited against the parent application. As a result, the statement made in the Examiner's Statement of Reasons for Allowance relative to the parent application that "there is no teaching in the prior art . . ." certainly contemplates Wuorio '724, even if such reference is not expressly identified. Further, Applicant submits that if the unique spaced relationship of the invention claimed in the parent application was not an obvious design choice in May 2003, then the same unique spaced relationship which is claimed in this continuation application of the allowed parent application should not now be rejected as an obvious design choice in view of the same prior art.

Accordingly, Applicant respectfully submits that the rejections under 35 U.S.C. § 103 of claims 1-4 and 8-10, as amended, should be withdrawn.

VIII. CONCLUSION

For all of the foregoing reasons, Applicant respectfully submits that the objections to the abstract, the specification and the drawings and the objections to and the rejections of the claims should be withdrawn, and claims 1-20, as amended, should be allowed.

Respectfully submitted,



Paul S. Weidlich
Chambliss, Bahner & Stophel, P.C.
1000 Tallan Building
Two Union Square
Chattanooga, Tennessee
Attorneys for Applicant

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